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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
ALEX, JAMES S	

ART UNIT	PAPER NUMBER
3636	

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01/15/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,679	AKAIKE ET AL.	
	Examiner	Art Unit	
	JAMES ALEX	3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/07/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-20,22-31 and 34-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-20,22-31 and 34-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/02/08, 10/15/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendments to claims 14, 20, 26, cancellation of claims 21, 32, 33, and new claims 34 35, 36 received 11/07/08 have been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14-20, 22-31, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed US 20030015898 in view of Monaghan US 3888329 and Schafer US 6623073.

Re claims 14, 16, 18, and 19, Breed discloses the invention as claimed. Note the headrest controller 250 (Par [0030] describes the crash sensor sequence), the headrest movement (seen in Figs. 9A and 9B), a head positioning detecting unit comprising a capacitive (par [0057] discloses the sensors as capacitive systems) first sensor 320, 321 for detecting a distance between a head (object), and a second sensor 350 for detecting contact between the head (object) and headrest, both located in the front part of a headrest, a control circuit (not numbered, in par [0061] Breed discloses that the control module comprises circuitry, considered to meet the limitation of a control circuit)

operatively coupled with said headrest driving mechanism which stops the headrest in an abutting position based on a detection signal from either of the sensors (see par [0064]).

Breed does not disclose that the headrest comprises a front part and a rear part with a headrest driving mechanism disposed between the front and rear parts, wherein the front part contacts the object.

Schafer teaches a similar headrest which includes a driving mechanism located within a front and back part of a headrest, in order to provide support to a user in response to an accident.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Breed by substituting this type of headrest driving apparatus to move the headrest forward for the screw disclosed by Breed, with the sensors disclosed by Breed incorporated into the front part of the headrest disclosed by Schafer, since either one is a recognizable equivalent structure for preventing injury to a user. Further, the Supreme Court has ruled in *KSR v. Teleflex* that "simple substitution of one known element for another to obtain predictable results", "applying a known technique to a known device ready for improvement to yield predictable results", "obvious to try, choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success" are several exemplary rationale to support a conclusion of obviousness. In the instant case, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Breed's forward motion device and headrest with the one taught by Schafer

since both are mechanisms designed to support a user's head and either one would obtain predictable results. It would have at least been "obvious to try" with a reasonable expectation of success. See MPEP § 2141 Section III, rationales B, D, E.

Breed does not disclose a timer.

Monaghan teaches a similar apparatus that reacts to an accident condition, which includes a timer that resets an impact device to an initial position after a certain amount of time (see col. 8 lines 21-26; Monaghan discloses that an impact device 102 is reset after a certain time after a sensor 202 is actuated, via a time delay switch 206; col. 7 lines 26-41 describe the time delay feature of switch 206, considered to meet the broad limitation of a "timer").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Breed by including a time delay switch which responds to a signal from a sensor, such as the contact switch 350, to reset the device after an impact. Breed anticipates that the system would be adaptable to be programmed to reset automatically in Par [0065].

Re claims 20, and 23, see above. Additionally, Breed discloses a crash detecting sensor 210, 211, 212 for detecting or predicting a crash to the rear of a vehicle (see Fig. 2), a headrest driving mechanism 360, 370 for moving the headrest; wherein the previously described control circuit alters or stops movement of the headrest driving mechanism based on input from the detection unit (Par [0059] describes the control

module stopping the headrest when state of contact is detected); and that the headrest can be automatically reset after being deployed in Par [0065].

Re claim 25, Breed further discloses that the first and second sensor each output a detection output signal (see Par [0059]), and wherein the control circuit stops the headrest based on whichever signal occurs earlier (in page 3, Par [0059], Breed discloses the headrest stopping once the second sensor switch is closed, and if it is open the signal from the first sensor appears to govern the movement).

Re claims 26, 28, 30, 31, see above rejections (headrest 111 has a front and a back), in Par. [0059] Breed discloses that the first sensor which can detect a longitudinal distance from the headrest to an occupant's head, and since he does not say otherwise it is assumed that the sensor can detect a distance between a moving head and the headrest; Breed further discloses the electronic control circuit containing a timer in Par [0059] (a microprocessor containing a timer) and causing the front portion to move based on a predetermined algorithm.

Re claims 15, 17, 22, 24, 27, and 29, Breed discloses the claimed invention according to claim 14 except for a plurality of first and second sensors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include more than one first and second sensor, since it has been held that mere

duplication of the essential working parts of a device involves only routine skill in the art. *St, Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Re claims 34-36, the predetermined time is a matter of design choice. It would have been obvious to one having ordinary skill in the art at the time the invention was made to program a predetermined time in the range of 1 to 15 seconds, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

Applicant's arguments with respect to claims 14, 20, 26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES ALEX whose telephone number is (571)270-3740. The examiner can normally be reached on M-TH, 7:30 am to 5:00 pm; F, 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dunn David can be reached on (571) 272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JA 1/13/09

/DAVID DUNN/
Supervisory Patent Examiner, Art Unit 3636